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Civil Engineering

**FIRE PROTECTION AND FIRE PREVENTION
PROGRAM**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction outlines the procedures for an effective fire protection and prevention program to prevent loss of life, property damage and related intangible losses. It implements AFRD 32-20, *Fire Protection*. The fire protection and fire prevention program establishes organizational and individual responsibilities and effects all areas, facilities, and activities at the 914 Airlift Wing (AW). It applies to all units assigned or attached to the 914 AW, including tenants, visitors, contractors, concessionaires, and the Base Operating Services (BOS) contractor.

1. Responsibilities:

- 1.1. The installation Commander (914 AW/CC) is responsible for fire protection at the 914 AW, including the 107 Air Refueling Wing (ARW), and the OLAC/NE AD, Sanborn N.Y. GATR site.
- 1.2. The Base Civil Engineer (CE) is the Base Fire Marshall and supervises the fire protection function.
- 1.3. The base Fire Chief (CEF) is responsible for establishing and carrying out fire protection and prevention programs. The Assistant Chief of Technical Services (CEFT) is responsible for the implementation of these programs through fire department operations personnel and the base fire inspector. CEF and CEFT personnel are authorized to stop any operation or process that presents a serious fire, explosion, or life safety hazard. This authority extends over all tenants and contractors on base.
- 1.4. Unit commanders, division chiefs, facility managers, supervisors and their subordinates at all levels are responsible for and must ensure that sound fire prevention procedures are established and practiced in each activity under their jurisdiction.

2. Installation Fire Protection and Prevention Program:

- 2.1. Unit commanders will execute comprehensive installation fire protection and fire prevention programs.

2.2. CEF, with the help of CEFT, develops, manages, and implements fire protection and fire prevention programs. CEF ensures that:

2.2.1. All facilities are inspected at least annually to identify and eliminate potential fire hazards and that fire prevention measures are enforced.

2.2.2. The emergency notification number “911” is properly displayed in all buildings.

2.2.3. Fire prevention and fire protection program elements ([Attachment 1](#) through [Attachment 7](#)) are made available to all unit commanders, division chiefs, facility managers, supervisors, tenants, and concessionaires.

2.3. Unit commanders, division chiefs, building managers, and supervisors will develop operating instructions (OI) to follow when fire is discovered. OIs should cover the fire protection and prevention elements outlined in the attachments of this instruction, as well as operations unique to the functional area.

2.3.1. Operating instructions must be coordinated through the base fire protection office and reviewed annually, or upon change in functional operations or processes.

3. Exceptions to this Instruction. Exceptions will not be made to this instruction without approval of the installation commander.

GERALD A. BLACK, Col, USAFR
Commander

Attachment 1**FIRE PREVENTION**

A1.1. Functional managers and facility managers are responsible for periodically inspecting their organizations to ensure compliance with this instruction, to eliminate fire hazards, and correct deficiencies. This includes:

A1.1.1. Ensure that:

A1.1.1.1. All work areas are left in a fire safe condition at the end of each tour of duty.

A1.1.1.2. All nonessential electric office machines and equipment control switches are shut off when not in use.

A1.1.1.3. Attics, crawl spaces, stairwells, storage rooms, and warehouses are free of trash, along with disposal of unnecessary combustible materials.

A1.1.1.4. Flammable and combustible products are stored in approved containers and cabinets.

A1.1.1.5. All waste materials are kept in non-combustible containers and are emptied daily.

A1.1.1.6. Hazardous waste materials are disposed of in accordance with current hazardous waste handling and disposal procedures.

A1.1.1.7. Flammables are not disposed of with wood, paper, metal waste, or any type of oxidizer.

A1.1.1.8. Mechanical rooms are not utilized for storage purposes.

A1.1.1.9. Non-government appliances are inspected by a base civil engineering electrician before being installed.

A1.1.1.10. Authorized smoking areas are kept free of trash and combustible material and that smoking materials are extinguished and disposed of in approved receptacles.

A1.1.1.11. Any operation or process that requires any type of open flame is coordinated and approved by the fire inspector. This includes outdoor recreational cooking.

A1.2. Periodically inspecting electrical equipment and appliances to detect worn or defective cords.

A1.3. Accompanying, or delegating an alternate to accompany, the fire inspector during fire prevention visits and to ensure that all areas are accessible to the fire inspector.

A1.4. Periodically making a visual inspection of all fire extinguishers, cabinets, emergency lighting, exit signs, pull stations, and extinguishing systems for proper operation or signs of tampering and reporting any deficiency to the fire inspector.

A1.5. Taking appropriate action against anyone who carelessly or willfully violates fire prevention policies, or by negligence causes fire loss to government property.

Attachment 2

LIFE SAFETY

A2.1. Unit commanders, division chiefs, facility managers and supervisors are responsible for ensuring that all life safety devices and features within areas of their jurisdiction are operational.

A2.2. Functional managers and facility managers will ensure that all:

A2.2.1. Hallways, stairwells, or any other path of egress are not obstructed in any manner.

A2.2.2. Exits are clear of trash, debris, and obstructions, including ice and snow, for a minimum distance of ten feet from the exit.

A2.2.3. Exit signs in their activities, which are electrically illuminated, are operational at all times.

A2.2.4. Doors, which are identified as exits, are kept unlocked while occupants are in the facility.

A2.2.5. Doors, which are identified as exits, are not chained or otherwise blocked or restricted in any manner.

A2.2.6. Doors, which are identified as fire doors, are in the closed position at all times.

A2.2.7. Fire protection features and devices are operational, unobstructed, and undamaged. These include: fire and smoke detectors, manual pull stations, portable fire extinguishers, extinguishing systems, emergency lighting, panic hardware, and fire alarm control panels.

Attachment 3

FIRE PREVENTION TRAINING

A3.1. Unit commanders, division chiefs, and supervisors will:

A3.1.1. Periodically conduct fire safety and prevention briefings to their subordinates, at all levels.

A3.1.2. Ensure that their personnel are observing fire regulations.

A3.1.3. Provide training in compliance with provisions of AFOSH STD 127-56, *Fire Protection and Prevention* and OSHA STD 1910.157, *Portable Fire Extinguishers*.

A3.2. Newly assigned persons will be briefed within 30 days following their reporting date. If desired, request technical services to provide the training.

A3.2.1. Briefing topics shall include, building evacuation procedures and plans, fire reporting procedures and emergency telephone numbers, exit locations, fire extinguisher locations, fire alarm pull station locations, designated assembly locations, and housekeeping practices.

A3.3. Fire extinguisher familiarization training will be conducted by the technical services section, as requested.

A3.4. Requests for hands-on fire extinguisher training for flightline personnel, or any other section, should be coordinated through the technical services office 30 days in advance.

A3.5. Building evacuation drills are conducted at the discretion of the technical services section, or as requested by unit authority.

Attachment 4

FIRE PREVENTION IN HANGARS, SHOPS, AND FLIGHTLINE

A4.1. Hangar chiefs, shop foremen, and supervisors are responsible for fire safety compliance within their workplace.

A4.2. Aircraft will not be fueled while inside hangar, or within 50 feet of hangar doors.

A4.3. Aircraft will not be serviced with oxygen while inside hangar, or within 50 feet of hangar door.

A4.3.1. At least one (1) flightline approved fire extinguisher must be easily accessible during refueling or oxygen servicing operations.

A4.4. Aircraft engines will not be operated inside hangars under any circumstances.

A4.5. Batteries should be disconnected and aircraft will be grounded at all times while in the hangar.

A4.6. No open-flame, spark-producing device, exposed filament heater, or any equipment capable of igniting vapors or gases are permitted within 50 feet of any maintenance section of the hangar, except for the weld shop.

A4.6.1. Blow torches, soldering irons, and other equipment in which open flames must be used will be restricted to isolated places, where there is air circulation and where no explosive vapors are present. AF Form 592, **Welding, Cutting, and Brazing Permit**, must be obtained from the technical services section prior to beginning any open-flame operation outside specifically designated weld shop areas.

A4.7. Only approved Class 1, Division 1, portable battery operated inspection lights will be used in aircraft hangars.

A4.7.1. Electrical equipment, or material will not be stored in such a manner as to block exits, interfere with fire protection equipment, or block accessibility or visibility of fire extinguishers.

A4.8. Supplies, equipment, or materials will not be stored in such a manner as to block exits, interfere with fire protection equipment, or block accessibility or visibility of fire extinguishers.

A4.9. Flammable or combustible materials and liquids, required to perform maintenance, shall be stored in approved containers and labeled as to the contents. The labeled containers shall be housed within approved cabinets.

A4.9.1. Quantities of flammable and combustible liquids stored in cabinets shall be in accordance with National Fire Codes, AFOSH Standards, and Codes of Federal Regulation.

A4.9.2. Flammable liquid storage cabinets shall be kept closed at all times, when not being accessed.

A4.10. Inspections of hangars and shops will be made daily to ensure a fire safe condition is maintained, prior to closing shops and hangars.

A4.11. Appropriate type and class fire extinguishers will be located along ramps, far enough from aircraft to prevent damage to aircraft or extinguishers by prop wash or jet blast.

A4.11.1. Flightline extinguishers are accountable and maintained by the fire protection branch or civil engineering. Damaged, used, or inoperable extinguishers shall be removed from service and immediately reported to the fire department alarm control center, or technical services, for required maintenance or repair.

A4.11.2. Flightline extinguishers, which are to be deployed with aircraft, must be receipted for on AF Form 1297, **Temporary Issue Receipt**, from the fire department.

Attachment 5**MOTOR VEHICLE MAINTENANCE FIRE PREVENTION**

A5.1. Supervisor, vehicle maintenance chiefs, and shop foremen are responsible for fire safety compliance within their workplace.

A5.2. Special activities necessary to perform vehicle maintenance operations, such as painting, welding, or other hazardous operations, will be performed in places or areas designated for that purpose.

A5.3. Flame producing devices are prohibited throughout the garages, except in specifically designated locations, such as the welding section.

A5.4. Precautions in battery shops will be strictly in compliance with provisions of AFOSH Standard 91-66, *General Industrial Operations*, AFOSH Standard 127-20, *Vehicle Maintenance Shops*, and other applicable directives.

A5.4.1. In battery shops, any spark producing equipment, such as electric lights, motors, etc., shall be explosion-proof, unless otherwise superseded by prevailing codes.

A5.4.2. No flammable, combustible, or oxidizing products of any sort will be used, or stored, in battery shops or rooms.

A5.5. Oily rags and waste will not be left on floors, workbenches, desks, etc.

A5.6. Oil, gasoline, or any other product spilled will be cleaned up immediately.

A5.7. The exhaust system will be in operation while maintenance is being performed on refueling units in vehicle maintenance refueling bay.

A5.8. Mobile equipment, having gasoline tanks mounted over the engine, will not be refueled within 50 feet of a building.

A5.8.1. Should gasoline tanks overflow during refueling operations, the engine will not be started until the fuel has evaporated.

A5.8.2. During refueling operations and starting of engines after refueling, a fire extinguisher will be held in readiness in the event of fire.

A5.8.3. Trucks or trailers containing small auxiliary gasoline powered units will be equipped with suitable fire extinguishers.

A5.8.4. Gasoline engines, used as power generators inside trailers or closed spaces, will be refueled with extreme care to prevent spillage and ignition from electrical sources or hot exhaust.

A5.9. All electrical devices and fixtures will be kept in good working condition at all times.

A5.9.1. All defective equipment will be repaired only by authorized technicians or tradesmen.

A5.9.2. Metal parts of all electrical machines will be grounded to low resistance ground.

A5.10. Flammable and combustible liquids will be stored in approved containers and housed in approved cabinets in quantities specified by the National Fire Code, Code of Federal Regulations, Air Force directives, or locally established policy.

A5.11. Hazardous waste products will be stored in approved accumulation points, away from ignition sources, until disposed of or recycled according to current regulations, policies, or directives.

Attachment 6**FIRE PREVENTION IN PLACES OF PUBLIC ASSEMBLY,
RECREATIONAL, AND BILLETING FACILITIES**

A6.1. Managers of places of public assembly and recreational facilities are responsible for fire safety compliance within areas of their jurisdiction. This responsibility extends over contracted services and concessionaires.

A6.2. Managers of public assembly and recreational facilities must establish and maintain a certification system to ensure employees have been trained and understand their fire prevention responsibilities within their work environment.

A6.2.1. This certification system includes periodic training of employees and immediate indoctrination of newly hired employees.

A6.3. Managers, or alternates, will conduct fire and security inspections of facilities at closing time, in accordance with the current SF 701, **Activity Security Checklist**.

A6.3.1. The closing inspection will be reported to security police (SP) for the blotter and the fire department alarm control center for entry in the daily log.

A6.3.2. If no such report is received within one (1) hour of the established closing time, SP will accomplish a visual inspection of the facility. SP will report the failure of the manager to accomplish closing procedures to the technical services section of the fire department, on the following workday.

A6.4. Managers of facilities, where commercial or restaurant type cooking is performed, will establish and enforce procedures to ensure all grease filters and exposed surfaces of kitchen range hoods are thoroughly cleaned, at least daily.

A6.4.1. The technical services section of the fire department will arrange for the thorough cleaning of hoods and ducts on a semi-annual basis, in all facilities where cooking is performed. The expense is reimbursable to civil engineering for NAF facilities.

A6.4.2. Building managers must be able to show documentation that hoods have been cleaned semi-annually.

A6.4.3. Cooking is not permitted under a range hood without grease filters installed and exhaust fan turned on.

A6.4.4. If an exhaust fan motor is shut down for repair or replacement, kitchen equipment served by that system will not be used until the fan is restored to service. Managers of facilities where deep-fat fryers are utilized will ensure that fryers are equipped with dual thermostats, limiting temperature to 400 degrees Fahrenheit on primary and 475 degrees Fahrenheit on secondary.

A6.5. Dual thermostats must be tested by qualified technicians semi-annually, at the users expense, and certification must be forwarded to the technical services section within ten (10) days of the testing.

A6.5.1. Metal covers must be provided and pre-positioned for each deep fryer for immediate use in case of a grease fire.

A6.6. Open flames (candles) designed to enhance atmosphere in places of public assembly are not permitted in Air Force facilities, unless they are housed in stable, non-combustible bases and the flame is protected from coming in contact with combustible materials.

A6.7. The billeting manager will ensure fire protection features in dormitories and individual rooms are fully operational, prior to assigning rooms for occupancy.

A6.7.1. Emergency evacuation plans should be available for each occupant's familiarization.

A6.7.2. Emergency telephone numbers should be visibly accessible.

A6.8. Smoking in bed is prohibited.

A6.8.1. Smoking materials will be placed in approved receptacle only.

A6.9. Hot plates, heaters, and electric cookers are prohibited in dormitories.

Attachment 7**MISCELLANEOUS FIRE PREVENTION POLICIES AND PROCEDURES**

A7.1. All unit commanders, division chiefs, facility managers, supervisors, and subordinates at all levels are responsible for complying with the fire prevention policies and procedures covered in this attachment.

A7.2. Holiday and Public Gathering Procedures:

A7.2.1. Natural Christmas trees will not be displayed in any facilities unless risk is accepted, in writing, by the installation commander and forwarded to the technical services section of the fire department.

A7.2.2. The butt of the tree will be cut in a diagonal slant or in a "V" and immersed in a container of water during the entire period of display.

A7.2.3. Trees will be kept well away from stoves, radiators, or other sources of ignition.

A7.2.4. Both natural and artificial Christmas trees must be chemically treated with or inherently flame retardant.

A7.2.5. Trees will be well secured against falling and will be placed so they will not block or hamper means of egress.

A7.3. Electrical Devices. Electrical lighting devices and extension cords will be inspected for serviceability before use and will be of the types tested and listed by underwriters laboratories.

A7.3.1. Overloaded electrical circuits must be avoided. Civil engineering will determine adequacy of circuits if requested.

A7.3.2. Electrical devices of any type are prohibited on metallic type Christmas trees.

A7.4. Social Events. In any facility where major social events are planned, the facility manager will consult with the technical services section prior to displaying unusual arrangements and decorations. All decorations will be of non-flammable or flame retardant type.

A7.5. Occupancy Standards. Overcrowding of facilities, during public gatherings, is prohibited. Occupancy capacity standards will not be exceeded.

A7.6. Barbecuing. The use of charcoal fueled barbecues is discouraged by the fire chief. Mobile propane fed units are the preferred appliance and if long term use in one location is desired, then a natural gas unit may be installed.

A7.6.1. Disposal of charcoal ashes in waste dumpsters is prohibited and must be extinguished with water if left unattended.

A7.6.2. When charcoal barbecues are used, the technical services section must be contacted for issuance of AF Form 592, inspection of the site, and provision of water pressure extinguishers.

A7.6.3. Storage of barbecue size propane tanks is prohibited in facilities and mechanical-boiler rooms. Cylinders of a one pound capacity or less may be stored in approved locations.